

WHAT IS CLAIMED IS:

1. A fuel cell electrocatalyst comprising:  
a carrier; and  
a catalyst layer made of a Pt-Ru alloy supported on the carrier, and  
5 having an oxygen content of 4.4 wt% or less.
2. A fuel cell electrocatalyst comprising:  
a carrier; and  
a catalyst layer made of a Pt-Ru alloy supported on the carrier, in  
which a value of the amount of oxygen that exists in one layer of an outermost surface  
10 of a component atom is 14.1% or less.
3. A method of producing a fuel cell electrocatalyst comprising:  
a supporting step of supporting a catalyst layer made of an alloy  
including Pt and Ru on a carrier; and  
an oxygen content regulating step of regulating an oxygen content of  
15 the catalyst layer.
4. The method of producing a fuel cell electrocatalyst according to claim  
3, wherein:  
the oxygen content regulating step is a step of regulating the oxygen  
content to 4.4 wt% or less with reference to the catalyst layer.
- 20 5. The method of producing a fuel cell electrocatalyst according to claim  
3, wherein:  
the oxygen content regulating step is a step of eliminating oxygen from  
the catalyst layer.
- 25 6. The method of producing a fuel cell electrocatalyst according to claim  
3, wherein:  
the supporting step includes a heating step of heating the catalyst layer,  
and the oxygen content regulating step is a step of keeping the catalyst layer in a non-  
oxidizing atmospheric state in the heating step.
- 30 7. The method of producing a fuel cell electrocatalyst according to claim  
6, wherein:  
the non-oxidizing atmospheric state in the oxygen content regulating  
step is a state in which a non-oxidizing substance is adsorbed on a surface of the  
catalyst layer.

8. The method of producing a fuel cell electrocatalyst according to claim 6, wherein:
- the non-oxidizing atmospheric state is a reducing atmospheric state.